CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
8102 8102
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

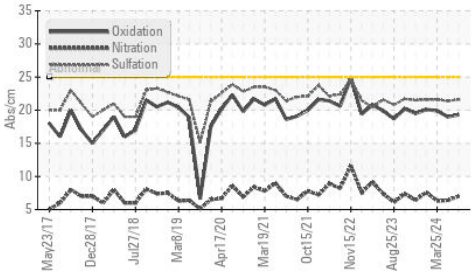
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

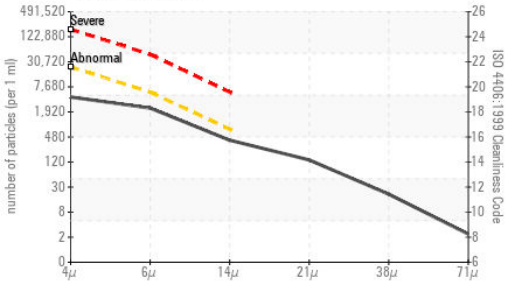
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0947754	WC0937790	WC0918604
Sample Date		Client Info		20 Jun 2024	17 May 2024	25 Mar 2024
Machine Age	hrs	Client Info		12763	12529	12291
Oil Age	hrs	Client Info		472	238	249
Filter Age	hrs	Client Info		472	238	249
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>100	6	6	13
Chromium	ppm	ASTM D5185m	>20	0	1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	4	9
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	3	3	3
Tin	ppm	ASTM D5185m	>15	0	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	4	6	22
Potassium	ppm	ASTM D5185m	>20	0	2	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.4	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	21.4	21.6
Particles >4µm		ASTM D7647	>20000	3810	5707	13493
Particles >6µm		ASTM D7647	>5000	2076	3109	7351
Particles >14µm		ASTM D7647	>640	353	529	1251
Particles >21µm		ASTM D7647	>160	119	178	421
Particles >38µm		ASTM D7647	>40	18	28	65
Particles >71µm		ASTM D7647	>10	2	3	7
Oil Cleanliness		ISO 4406 (c)	>21/19/16	19/18/16	20/19/16	21/20/17
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		2	2	2
Boron	ppm	ASTM D5185m	250	34	56	51
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	48	49	49
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	521	504	494
Calcium	ppm	ASTM D5185m	3000	1807	1624	1688
Phosphorus	ppm	ASTM D5185m	1150	804	808	745
Zinc	ppm	ASTM D5185m	1350	980	900	901
Sulfur	ppm	ASTM D5185m	4250	3026	2883	2477
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	19.0	19.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.5	9.7	9.9
Visc @ 100°C	cSt	ASTM D445	10.9	11.2	11.2	11.4

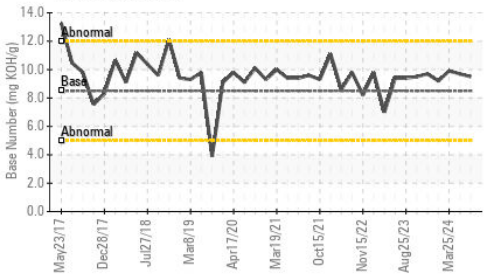
FT-IR (Direct Trend)



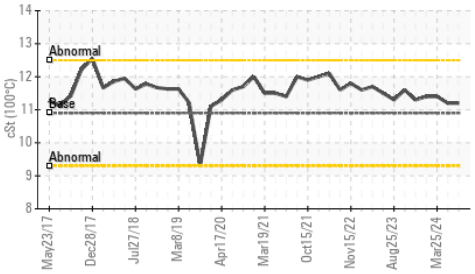
Particle Count



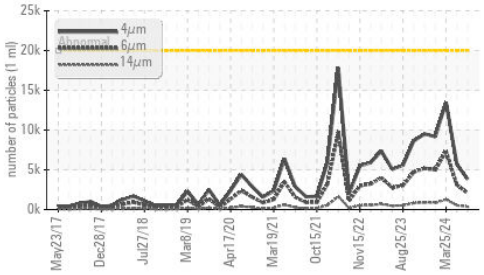
Base Number



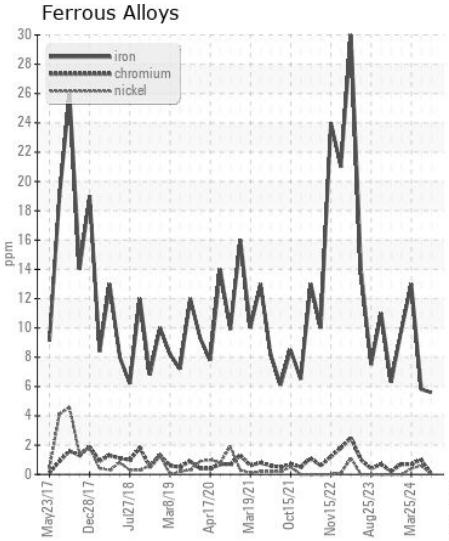
Viscosity @ 100°C



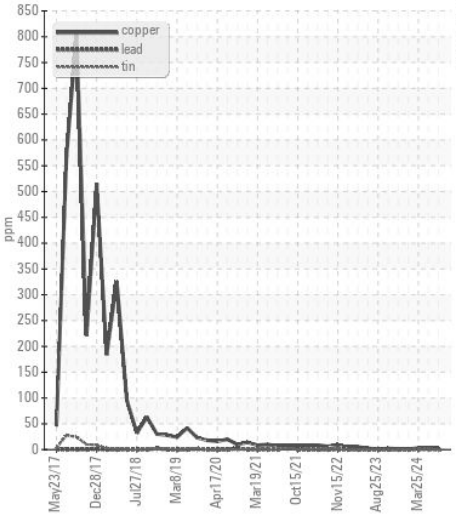
Particle Trend



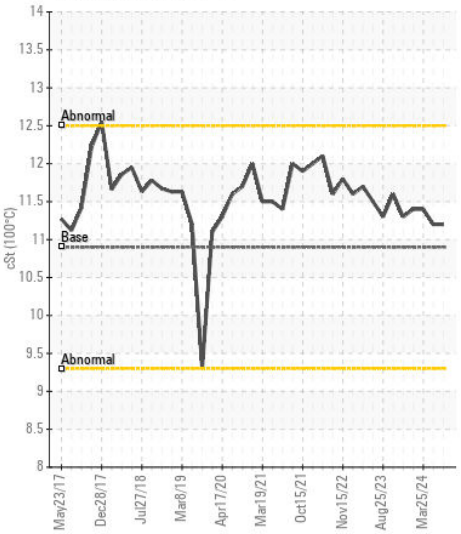
Ferrous Alloys



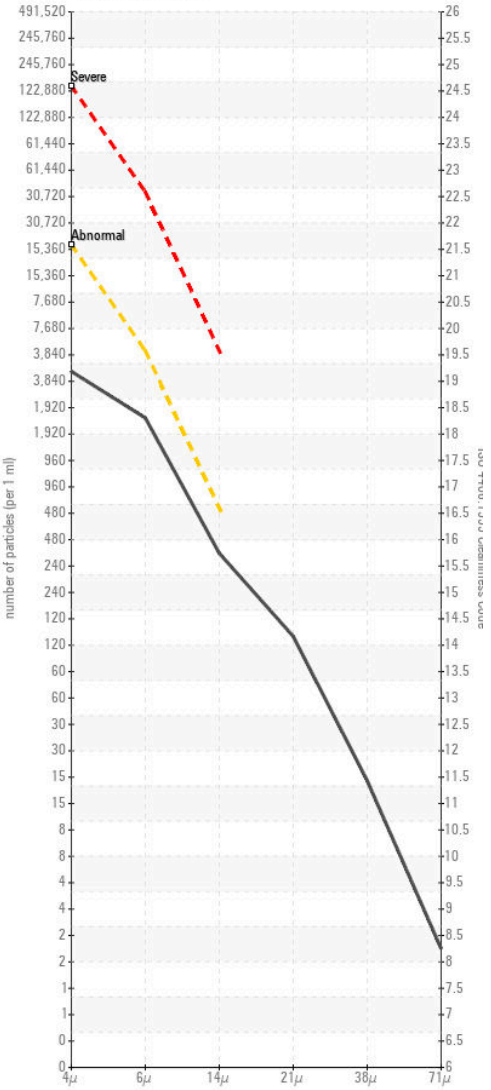
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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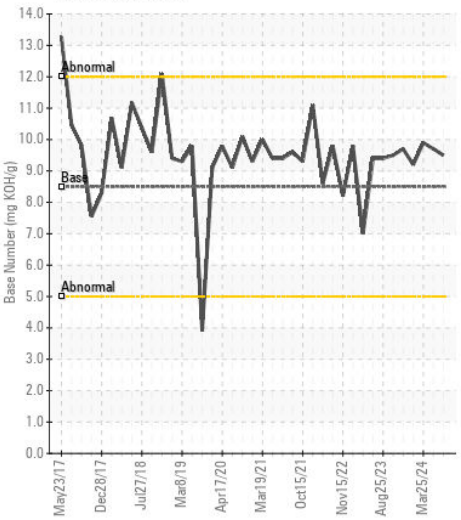

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0947754 **Received** : 24 Jun 2024
Lab Number : 06218038 **Tested** : 25 Jun 2024
Unique Number : 11096235 **Diagnosed** : 25 Jun 2024 - Don Baldridge
Test Package : CONST (Additional Tests: PrtCount, TBN)

Certificate L2367

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To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)